

**REMARKS**

Applicants acknowledge that the objection to the declaration has been withdrawn, that the drawings submitted April 15 have been accepted, and that the substitute specification filed January 22, 2002 has been accepted, as set forth in paragraphs 1-3 of the Office Action. In addition, the objections to the disclosure set forth in paragraph 4 of the Office Action have been withdrawn in view of the acceptance of the substitute specification.

In response to the objection to the disclosure set forth in paragraph 7 of the Office Action, Applicants have amended the substitute specification to correct the expression " $\lambda_1$ " to " $\lambda_i$ " at paragraph [0061], page 27, line 7. In this regard, Applicants note that paragraph 7 of the Office Action refers to page 29, line 9. However, the latter appears to be a reference to the original application, which corresponds to the substitute specification at page 27, line 7. If additional correction is required, further clarification is respectfully requested.

Claims 23-26, 30-32, 40 and 43-44 have been rejected under 35 U.S.C. §103(a) as unpatentable over Sato et al (U.S. Patent No. 5,926,294) in view of McGrew (U.S. Patent No. 5,138,471), while Claim 27 has been rejected as unpatentable over the same two references, and further in view of Sukhman (U.S. Patent No. 4,338,578);

and Claims 28 and 29 have been rejected as unpatentable over Sato et al in view of McGrew et al, and further in view of Gnädig et al (German patent document DE 197 00 162 A1). Claims 33 and 34 have been rejected as unpatentable over Sato et al in view of McGrew and further in view of Arns et al (U.S. Patent No. 4,456,328); and Claim 35 has been rejected as unpatentable over Sato et al in view of McGrew and further in view of Hariharan. However, for the reasons set forth hereinafter, Applicants respectfully submit that all claims of record in this application distinguish over the cited references, whether considered separately or in combination.

The primary Sato et al reference discloses a hologram for reproducing a three-dimensional image from image data which have been previously stored in a memory, or which are computed by a computer, as indicated, for example, at Column 25, lines 3-5 and, for example, Figure 11. Sato et al does not, however, disclose a method for producing a video screen hologram for the projection of video images. In addition, Sato et al also does not teach or suggest illumination of the real video screen (a physical object) by guiding a scanning pulsed laser beam over the video screen, nor does it disclose that the produced video screen hologram (stored in a medium) is constructed as a contact hologram or an image plane hologram, as previously acknowledged. In addition, Sato et al also does not disclose that during reconstruction of the holograph image or projection of video images, the projected video image

appears on the hologram plane. Instead, the three-dimensional image reconstructed from data appears at a distance from the hologram.

Applicants respectfully submit that the combination of Sato et al and McGrew does not render obvious the present invention as defined in the independent claims of this application, in that McGrew, like Sato et al, does not disclose a method of producing a video screen hologram containing a holographic image of a real video screen, for forming a projected video image thereon. Such video screen holograms differ from a normal reflection-type video screen, in that they diffract the project light from a video projector toward the viewer, but with a much higher contrast. (See page 1, last paragraph and page 2 of the substitute specification.) McGrew, on the other hand, is related to the holographic recording of objects or patterns, but is otherwise altogether different from the technology for generating video screen holograms for the projection of video images, as recited in the independent claims of the present application.

The Office Action states at page 4, item 9, that according to McGrew a video screen hologram of the entire video screen is obtained by a composition of the individual recordings. However, only the pattern 102 is recorded into the holographic recording plate 130, as indicated, for example at Column 3, lines 11-25, and shown in Figure 1.- Thus, McGrew teaches making a plurality of individual recordings of a predetermined pattern 102, but does not teach the generation of a video screen

hologram of an entire video screen by sequentially illuminating small portions of a real video screen (a physical object).

Furthermore, McGrew also fails to teach or suggest a video screen hologram which is constructed as a contact hologram or an image plane hologram, such that, during reconstruction of the holographic image of the real video screen, a projected image appears in the hologram plane. As a result, the generated video screen hologram has the optical properties of a diffusion screen, and videos or movies projected thereon can be seen by the viewer with very high contrast, brightness and color fidelity. In contrast, McGrew teaches recording of a predetermined three-dimensional object or pattern with a scanning post laser beam, to generate a hologram that is able to reproduce the recorded pattern for the viewer.

It follows that the teachings of Sato et al and McGrew does not suggest the present invention as defined in amended Claim 23, and the other independent claims of the application.

With regard to Claim 28, the limitations of which have now been incorporated into the independent claims present in the application, the Office Action has cited the Gnädig et al reference, which is discussed on pages 1 and 2 of the substitute specification herein. However, nothing contained in Gnädig et al teaches or suggests the use of a contact hologram or an image plane hologram in order to maximize the

amount of scattered light recorded by the holographic medium. Rather, Gnädig et al teaches the production of a contact or image plane hologram for the purpose of recopying or copying a master hologram; for example, for mass production of holographic projection screens. (See Column 5, line 50 through Column 6, line 5.) The present invention, on the other hand, is related to the problem of the production of larger video screens, presenting considerable technical difficulties in the prior art, such as is discussed at page 4 and 5 of the substitute specification. Accordingly, the combination of Gnädig et al with Sato et al and McGrew does not teach or suggest the present invention as defined in the claims of the present application.

In light of the foregoing remarks, this application should be in condition for allowance, and early passage of this case to issue is respectfully requested. If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please

charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket #420/50815).

Respectfully submitted,

A handwritten signature in dark ink, appearing to read "Gary R. Edwards", is written over a horizontal line.

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